

## **Executive Summary**

### **MI Travel Counts Key Objective**

The objective of the MI Travel Counts program was to obtain household travel characteristics statewide for input into the MDOT Statewide and Metropolitan Planning Organization (MPO) travel demand models.

### **Background**

The MI Travel Counts data collection program was Phase II of an overall three-phase model improvement plan undertaken by MDOT. Phase I, completed in winter 2002, involved the research of modeling practices, development of new model specifications, and identification of required travel demand model data. Phase II, MI Travel Counts, collected the data needed as identified in Phase I. Phase III, commencing fall 2005, will be the development and improvement of the MDOT travel demand models.

MI Travel Counts data will allow MDOT to move away from using national defaults in modeling since it captured unique travel patterns that exist within Michigan. MDOT has never collected household travel characteristics for the entire state and has not collected travel characteristics in urban areas since the 1970s.

### **Implementation**

**Sample Design:** Basic demographics and 48-hours of travel information including destination, mode of travel, and purpose of trip were collected for every member (including children) of 14,315 households. The design for MI Travel Counts divided the State of Michigan into seven geographic areas. The seven areas were:

1. SEMCOG (Seven counties of Detroit Area)
2. Small Cities (Population of 5,000-50,000 outside small urban and TMA areas)
3. Upper Peninsula Rural
4. Northern Lower Peninsula Rural
5. Southern Lower Peninsula Rural
6. Transportation Management Areas (TMAs) (Population over 200,000)
7. Small Urban Modeled Areas (Population between 50,000-200,000)

**Public Awareness:** Detroit-based public relations firm Brogan & Partners in cooperation with MDOT conducted the public awareness program, consisting of five key elements:

- Name and logo development (MI Travel Counts).
- Pre-notification letters to legislators and state, regional, and local planning and transportation officials.
- Press releases to media.
- Development of MI Travel Counts website ([www.michigan.gov/mitravelcounts](http://www.michigan.gov/mitravelcounts)).
- Toll-Free number manned by MORPACE and phone number of the MDOT project manager.

The website had an average of 573 hits per month. The Toll-Free number had a range of 2,000 to 4,000 calls per month. The MI Travel Counts program received several positive news coverage spots on Michigan television, radio stations, and newspaper articles.

*Pilot Study:* A pilot study was undertaken in February 2004 testing the performance of sixteen data collection instruments, procedures, and protocols, collecting data for all members of 126 households.

*Full Study:* The full implementation of the program took place during two time periods. A spring collection was done from March 2004 through June 2004 and a fall collection from September 2004 through January 2005. The final data was delivered to MDOT in August 2005.

### **MI Travel Counts Key Data Results**

- Average number of trips per person statewide was 7.72 for the 48-hour travel period.
- Trips rates were highest in the Small Cities (8.3) and lowest in the UP (7.45) and the Southern Lower Peninsula (7.4) rural areas.
- Work trips had the highest reported frequency following by personal business trips, everyday shopping trips, and picking up or dropping off passengers.
- Average trips were highest for those ages 35-54 for all sample areas.
- The average number of trips was considerably lower for those 55 years or older living in the rural areas of the Northern Lower (7.14) and Upper Peninsulas (7.4).
- Overall females tend to generate more trips than males.
- The trip generation rate was highest among females ages 35 to 54, and lowest among males ages 18 to 34.
- The average trip length for all purposes ranged from 13 minutes in the Small Cities to 20 minutes in the Southern Lower Peninsula Rural area.
- The average trip duration for work trips was 21 minutes statewide.
- Average travel time to work was shortest in the Small Cities area (16 minutes) and longest in the seven county SEMCOG sample area (25 minutes).
- Other trip purposes with longer duration times are to attend college and for major shopping (particularly in rural areas).
- On Travel Day 1, one person households averaged 4.29 trips while households with five or more persons averaged 19.42 trips per household.
- The mean number of trips per household on Travel Day 1 was 9.99 trips.
- On Travel Day 2, the mean number of trips per household was 9.42, a decline of 5.7% in reported trips from Travel Day 1.

## **Conclusion**

- MI Travel Counts Program fulfilled its objective to obtain household travel characteristics statewide for input into the MDOT travel demand models. Phase III of the MDOT Model Improvement Program will commence in fall 2005. It will provide an in depth analysis of data collected in the MI Travel Counts program, which will be used to update the MDOT Statewide and MPO travel demand models